

## Version 19.1.1

- Added support for Keysight U2000 Series USB power sensors
- Added support for Keysight U8480 Series USB power sensors

## Version 18.4.3

- Added COM commands for Differential and Common Mode Z Conversions

## Version 18.4.2

- Added SCPI commands for Differential and Common Mode Z Conversions

## Version 18.4.1

- Implemented Differential and Common Mode Z Conversion functions for balanced measurements
- Added Adapter Removal/Insertion function
- Added Unknown Thru Addition function

## Version 18.3.3

- Added support for ACM4520.1
- Added print to file function with uncial files names

## Version 18.3.2

- Added an option for saving the touchstone file format with either Space or Tab as the separator character
- Fixed a bug in the Time Domain function when the number of points set was more than 50,000

## Version 18.3.1

- Fixed a bug with the Vector Mixer Calibration menu. Now the \*.s2p file of the mixer automatically de-embeds upon completing the calibration process

## Version 18.2.4

- Added T4311 and Z5411 to the predefined list in the calibration table

## Version 18.2.3

- Fixed an issue with the initialization of the software

## Version 18.2.2

- Added SCPI commands for the Auxiliary Source function (see the SCPI Programming Manual). The commands start with SOUR:AUX
- Added the ability to customize the language shown on the VNA GUI using the language template file (DIY localization) and the language select menu

## Version 18.2.1

- Added support for the FET1854 extenders
- Improved the Auto-orientation algorithm for poorly matched test setups

## Version 18.2.0

- Improved the Automatic Calibration Module (ACM) functionality with the software
- Fixed a bug with calibration on 4-port Cobalt VNAs when the number of points were greater than 1201
- Fixed a bug with the \*.CSV file output format when the saving Polar and Smith displays
- Changed the recall state logic. Now recalling the "State Only" file retains the current calibration
- Fixed a bug in the HiSLIP protocol and the SCPI command \*OPC?
- Fixed the "CMT S2 and S4 VNA" LabView driver from the "Programming Examples and Guides"
  - The data fetch vi's had unnecessary delay that slow down the execution
  - Fixed a bug in the "Send Trigger.vi"

- Fixed a bug in the "Wait for Operation Complete.vi"

## Version 18.1.5

- Added the definitions of the new calibration kits: S911T, N1801 and S2611
- Fixed a few minor bugs

## Version 18.1.2

- Updated the operating manual

## Version 18.1.0

- Implemented S-parameters renormalization transformation to the complex reference impedance
- Added the Frequency Auto Adjust Function while measuring a mixer with an internal LO without the ability of having common reference source

## Version 17.3.6

- Added support for the new ACM2509 hardware version 2.0, R&S NRP110T power sensor and FET1854 frequency extenders

## Version 17.3.2

- Introduced new LabView driver using SCPI commands and VISA library (The previous driver used COM commands and is not recommended for new developments)
- Added memory FIFO function, up to 8 memory traces
- Fixed limit test issue with log sweep mode
- Fixed a bug with the port selection in the 3-port SOLT calibration
- Improved termination of the VNA application when closing the COM reference

## Version 17.2.5

- Driver and installer are digitally signed using an enhanced certificate. Enables driver installation on all Windows versions including fresh (non-upgraded) installations of Windows 10, version 1607 with Secure Boot ON.
- Added Invisible Mode feature. Wherein a user can hide the GUI, while programmatically access all the functions

## Version 17.2.2

- Added support for the models C4409, C2409
- Fixed a bug related to conversion of S-parameters from a loaded Touchstone file to differential form
- Added the ability to assign a marker's color

## Version 17.2.0

- Added HiSLIP protocol functionality: an update to TCP/IP functionality of the instrument
- Updated SxVNA programming manual to reflect additional SCPI commands

## Version 17.1.2

- Improved the CSV save function with one-click, multi-trace saving and advanced formatting options

## Version 17.1.1

- Added new trigger functions: averaging trigger and calibration trigger source (including point trigger for calibration)

## Version 16.4.1

- Added a new Security Level feature to hide frequency values during measurement
- Fixed a bug related to manual entry of calibration kits. Some classes did not appear for assignment on ports 3 and 4

## Version 16.3.2

- Fixed a bug SCPI command interface bug related to the SElected]:MARKer:FUNction:DOMain group of commands

## Version 16.3.1

- Fixed a bug related to establishing a TCP Socket Server connection after calibration

## Version 16.3.0

- Added a new automation interface: SCPI commands can be sent over TCP/IP socket

## Version 16.2.5

- Fixed a bug related to discrepancy between differential parameters on the Smith chart in comparison with reflection impedance calculated by the conversion function

## Version 16.2.2

- Fixed a bug related to SCPI.SENSE(Ch).CORRection.COLLect.ECAL.SOLT<sub>4</sub> with channel numbers other than 1

## Version 16.2.1

- Fixed a bug with the SCPI.SYSTem.TERMinate command

## Version 16.2.0

- Added COM commands related to Analysis > Fixture Simulator > Balun and Analysis > Fixture Simulator > De-embedding S<sub>4</sub>P
- Added COM commands to perform 3-port and 4-port calibration using a 4-port Autocal Module
- Fixed a bug related to Trigger Source & Ext Trig Event buttons
- Fixed a bug related to saving Balun measurements into a state file
- Fixed a bug related to Smith chart (R + jX) marker data indication when the Balun feature is ON

## Version 16.1.0

- **IMPORTANT:** All instruments in the S<sub>4</sub> Family (4-Port VNAs) now share a common installer and software; instrument type can be dynamically detected or manually set on the System->Misc Setup menu. Version 16.1.0 supports the Planar 808 instrument
- **IMPORTANT:** This software release includes significant changes to the name of the COM interface. Legacy programs written in C# and VB.NET may experience issues related to the COM server name change, necessitating a code modification and recompile
- **IMPORTANT:** This software release includes significant changes to demo/simulator mode: during installation, select whether the software should run in a demo/simulator mode or not. This setting can be changed later on the System->Misc Setup menu
- **IMPORTANT:** The version number now reflects the year of release, major, and minor revisions; it is unified across software families
- The program can be limited to connect with any particular VNA instrument type and/or serial number
- Added two kits (N611/12/911/12 S/N Axx, Bxx and N611/12 S/N 4xx, 5xx, 6xx) to the predefined calibration kit table
- Changed the application icon
- Added simulation mode for forthcoming instruments
- Added Reverse Sweep (sweeping from higher frequencies to lower frequencies)
- Improved the Gating algorithms with respect to window roll-off effects
- Changed the COM interface to the more universal name: IS<sub>4</sub>VNAPtr
- Added a new more universal name for the COM server: S<sub>4</sub>VNA.Application

## Version 1.9

- Updated automation examples and guides
- Added support for plug-ins
- Modified the auto port extension function; now the full frequency range is used to determine extension delay

## Version 1.8

- Added IFBW to the stimulus menu
- Improved reliability of the ACM Auto-Orientation function

## Version 1.7

- Added the SENS:CORR:COLL:SIMP:SAVE command to the SCPI automation interface

## Version 1.6

- Added support for AutoCal Module (ACM) characterization using segment sweep mode, enabling ACM to be used down to 20 kHz
- Added support for the 4-port AutoCal Module ACM8400T
- Extended Time Domain functionality
  - Unit selection of seconds, meters, or feet
  - Reflection Type selection of either Round Trip or One Way
  - Cable correction function allowing for velocity factor and cable loss correction
  - Cable data can be entered manually or selected from a cable table
  - Cable table includes commonly used cables and can be extended by the user
  - Cable table data is saved when the program is closed

## Version 1.5

- Added Frequency Offset Mode functions for measuring mixers with Auxiliary Source feature

## Version 1.4

- Fixed a bug related to AutoCal failure on channels other than 1

## Version 1.3

- Exe module renamed to Planar808.exe. Operating manual and data sheet included in setup file